REMARKS

Claims 1 – 20 remain in this application. Claims 5 – 7 and 12 have been amended. Reconsideration of this application in view of the amendments noted is respectfully requested.

In the Office Action, claims 5 – 7 and 12 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, there is insufficient antecedent basis for "the glycidyl ether (B2)."

Claims 5 – 7 and 12 have been amended to delete the recitation "and/or the glycidyl ether (B2)."

Accordingly, applicant respectfully requests that the Section 112, second paragraph rejection of claims 5 – 7 and 12 be withdrawn.

Claims 1, 3, 9 – 11, 16, 18, and 20 were rejected under 35 U.S.C. 102(b) as being anticipated by Casey et al. (U.S. Patent No. 3,997,512, hereinafter "Casey"). Applicant respectfully traverses this rejection.

With respect to independent claim 1, the presently claimed invention is:

A biodegradable polyester resin composition comprising a thermoplastic polymer which comprises 100 parts by mass of an aliphatic polyester (A) and 0.01 to 5 parts by mass of a (meth)acrylic ester (B1), the (meth)acrylic ester (B1) having two or more (meth)acryl groups in the molecule thereof, the aliphatic polyester (A) being crosslinked with the (meth)acrylic ester (B1), the biodegradable polyester resin composition having a gelation index (1) of not lower than 0.1% and a gelation index (2) of not higher than 0.5%.

According to the present invention, the biodegradable polyester resin composition, which has a lower gel content, excellent mechanical strength and heat resistance and rheology advantages for molding a foamed articles and the like, can be easily prepared at lower costs. The article produced by the molding of the resin has a flat surface and good appearance, and examples thereof include articles produced by foaming with excellent foamability, articles produced by injection molding and blow molding with excellent moldability, and articles produced by extrusion. The presently claimed biodegradable

polyester resin composition and molded article produced from the same are effectively and cleanly decomposed by natural decomposition, compost decomposition, and the like. Thus, environmentally desirable articles can be easily provided (see page 5, lines 21 – 36 of the specification).

In order to obtain the present biodegradable polyester resin composition, it is important to specify a gel content for the following reasons.

In the present invention, a gel means a three-dimensional network structure which is formed in the resin by crosslinking molecules of the resin by a crosslinking agent or a lower molecular weight monomer. The gel causes the resin to lose fluidity and harden. The gel forms flaws in an article during the molding process, often deteriorating the appearance and quality of the article. Therefore, the size of gel particles is important. And the present invention makes it possible to minimize the size of the gel particles so that appearance and quality are not diminished.

According to the present invention, if the gel particles each have a diameter of not greater than 90 μm, for example, articles having excellent appearance and quality are produced by foaming and molding. In the present invention, the gelation index (2) should be not higher than 0.5 % for limiting the amount of the gel particles having sizes greater than 90 μm. The gelation index (2) is defined as follows (see also page 12, lines 5 – 26 of the specification):

A sample of a crosslinked resin composition or a sample of an article produced from the crosslinked resin composition by foaming or molding is accurately weighed. In the flask, the sample and chloroform is poured, and stirred for dissolving the sample. Then, the resulting solution in the flask is filtered through a 200-mesh wire net. The substance remaining on the wire net after filtration is dried. The mass W2 of the dried substance (obtained by the filtration through the 200-mesh wire net) is determined. The gelation index (2) is defined as the ratio (W2/W0x100)% of the mass W2 to the mass W0 of the sample determined before the dissolution.

The Office Action takes the position that a biodegradable polyester composition shown in Examples 4, 11, and 12 of Casey would have inherently possessed properties of the

presently claimed invention in view of the similarity of the compositions. However, the biodegradable polyester resin composition of the present invention is at least 95.5% soluble in chloroform, because the gelation index (2) defined as the ratio (W2/W0x100)% is not higher than 0.5% as described above. This means that not higher than 0.5% of the presently claimed biodegradable polyester resin composition is gelated.

In contrast, the biodegradable polyester resin composition of Casey is crosslinked by adding ethylene glycol dimethacrylate (Example 12). A film cast from this composition becomes highly swollen in chloroform and does not dissolve (Example 12), although the un-crosslinked polymer was soluble in chloroform as in Example 1 of Casey. It is considered that almost all of the biodegradable polyester resin composition of Casey is gelated considering the swelling state in chloroform described in Example 12.

Thus, the presently claimed composition has a gelation index (2) of not higher than 0.5%, specifying a state in which the gel content is remarkably low, whereas the resin composition of Casey has a gelation index that is higher than 0.5%. Therefore, the resin composition of Casey is significantly different than the presently claimed biodegradable polyester resin composition.

For these reasons, Casey does not anticipate claim 1, and claim 1 is patentable over Casey. Claims 3, 9 – 11, 16, 18, and 20, depending from claim 1, are also patentable over Casey. Accordingly, applicant respectfully requests that the Section 102(b) rejection of claims 1, 3, 9 – 11, 16, 18, and 20 as being anticipated by Casey be withdrawn.

Claims 2, 15, 17, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Casey in view of Wang et al. (U.S. Patent No. 5,952,433, hereinafter "Wang"). Applicant respectfully traverses this rejection.

As an initial matter, while the claim rejections refer to Wang '433 (U.S. Patent No. 5,952,433), the PTO-892's in the prosecution history instead cited Wang et al. (U.S. Patent No. 6,075,118, hereinafter "Wang '118"). In other words, applicant respectfully notes that Wang '433 has not been cited in any PTO-892 in this or any previous Office Action. Therefore, applicant respectfully requests that Wang '433 is cited in a PTO-892.

Applicant incorporates by reference the arguments made above with respect to the patentability of claim 1 over Casey. Based upon those arguments, claim 1 is patentable over Casey. Claims 2, 15, 17, and 19, depending from claim 1, are also patentable over Casey, and any combination of Casey with Wang.

Furthermore, Wang also fails to disclose or fairly suggest a gelation index (2) defined as the ratio (W2/W0x100)% is not higher than 0.5%.

For these reasons, applicant respectfully requests that the Section 103(a) rejection of claims 2, 15, 17, and 19 as being unpatentable over Casey in view of Wang be withdrawn.

Claims 1, 8, and 14 were rejected under 35 U.S.C. 103(a) as being unpatentable over Deckwer et al. (U.S. Patent No. 6,150,490, hereinafter "Deckwer") in view of Casey. Applicant respectfully traverses this rejection.

With respect to claim 1, applicant incorporates by reference the arguments made with respect to Casey above. In this regard, Casey fails to disclose or fairly suggest a gelation index (2) defined as the ratio (W2/W0x100)% is not higher than 0.5%.

Further, Deckwer fails to remedy this deficiency. Deckwer fails to disclose or fairly suggest a gelation index (2) defined as the ratio (W2/W0x100)% is not higher than 0.5%.

For these reasons, claim 1 is patentable over any possible combination of Deckwer and Casey. Claims 8 and 14, depending from claim 1, are also patentable over Deckwer and Casey.

Accordingly, applicant respectfully requests that the Section 103(a) rejection of claims 1, 8, and 14 as being unpatentable over Deckwer in view of Casey be withdrawn.

Claims 1, 2, and 13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Deckwer et al. (U.S. Patent No. 6,150,490, hereinafter "Deckwer") in view of Casey and Wang. Applicant respectfully traverses this rejection.

With respect to claim 1, applicant incorporates by reference the arguments made with respect to Casey above. In this regard, Casey fails to disclose or fairly suggest a gelation index (2) defined as the ratio (W2/W0x100)% is not higher than 0.5%.

Further, Deckwer and Wang fail to remedy this deficiency. Deckwer and Wang both fail to disclose or fairly suggest a gelation index (2) defined as the ratio (W2/W0x100)% is not higher than 0.5%.

For these reasons, claim 1 is patentable over any possible combination of Deckwer with Casey and Wang. Claims 2 and 13, depending directly or indirectly from claim 1, are also patentable over Deckwer, Casey, and Wang.

Accordingly, applicant respectfully requests that the Section 103(a) rejection of claims 1, 2, and 13 as being unpatentable over Deckwer in view of Casey and Wang be withdrawn.

Claims 4 – 7 and 12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Wang in view of Casey. Applicant respectfully traverses this rejection.

With respect to claim 4, for the same reasons as argued above, Casey and Wang both fail to disclose or fairly suggest a gelation index (2) defined as the ratio (W2/W0x100)% is not higher than 0.5%. Therefore, claim 4 is patentable over any possible combination of Casey with Wang. Claims 5 – 7 and 12, depending directly or indirectly from claim 4, are also patentable over Casey and Wang.

Accordingly, applicant respectfully requests that the Section 103(a) rejection of claims 4 – 7 and 12 as being unpatentable over Casey in view of Wang be withdrawn.

Claims 1 – 4, 8 – 11, and 13 – 20 were provisionally rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 5, and 6 of copending application no. 12/312,808.

With respect to the double patenting rejection, since the rejection is provisional, no further action is required until the double patenting rejection is the only remaining rejection in the present application and/or the rejection is no longer provisional. Applicant reserves the right to address the double patenting rejections and/or file a terminal disclaimer at a later date if necessary.

Also, it is noted that among the present application and copending application no. 12/312,808, the present application is the earlier filed application. Pursuant to MPEP Section 804 I. A. 1., when a provisional obviousness-type double patenting rejection is the only

remaining rejection in the earlier filed of two copending applications, the examiner should withdraw that rejection and allow the earlier-filed application to issue without need for a terminal disclaimer. A terminal disclaimer is then required only in the later-filed application. Therefore, pending withdrawal of the other rejections in this application, the provisional obviousness-type double patenting rejection should be withdrawn in the present application without the need for a terminal disclaimer.

Claims 1 – 3, 8 – 11, and 13 – 20 were rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 4, 9, and 10 of U.S. Patent No. 7,449,510 (hereinafter "the '510 patent"). Applicant respectfully traverses this rejection.

Claims 1, 3, 4, 9, and 10 of the '510 patent do not disclose or fairly suggest a resin composition having a gelation index (2) defined as the ratio (W2/W0x100)% is not higher than 0.5% as in the presently claimed invention. Therefore, claims 1 – 3, 8 – 11, and 13 – 20 of the present application are patentably distinct from claims 1, 3, 4, 9, and 10 of the '510 patent.

Accordingly, applicant respectfully requests that the nonstatutory obviousness-type double patenting rejection of claims 1 – 3, 8 – 11, and 13 – 20 as being unpatentable over claims 1, 3, 4, 9, and 10 of the '510 patent be withdrawn.

This amendment and request for reconsideration is felt to be fully responsive to the comments and suggestions of the examiner and to place this application in condition for allowance. Favorable action is requested.

Respectfully submitted,

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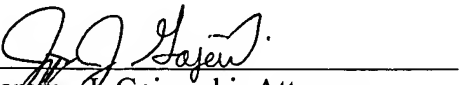

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